

WHAT IS CLAIMED IS:

1. A method of treating or preventing cerebral vasospasm that accompanies subarachnoid hemorrhage (SAH) comprising administering to a patient in need of such treatment or prevention an amount of an agent that inhibits vascular cell proliferation sufficient to effect said treatment or prevention.

2. The method according to claim 1 wherein said agent is a compound that inhibits a mitogen of vascular wall cells.

3. The method according to claim 2 wherein said cells are smooth muscle cells, fibroblasts, pericytes or endothelial cells.

4. The method according to claim 2 wherein said mitogen is a growth factor.

5. The method according to claim 4 wherein said growth factor is an insulin-like growth factor, a platelet-derived growth factor, an endothelial growth factor, a fibroblast growth factor or a transforming growth factor.

6. The method according to claim 2 wherein said mitogen is thrombin.

7. The method according to claim 4 wherein said agent is a compound that inhibits binding of said growth factor to a receptor therefor.

8. The method according to claim 7 wherein said compound is an antibody specific for said growth factor.

9. The method according to claim 1 wherein said agent is a retinoid.

10. The method according to claim 1 wherein said agent is a chemotherapeutic agent.

11. The method according to claim 10 wherein said chemotherapeutic agent is bis(chloroethyl)nitrosourea, methotrexate or 5-fluorouracil.

12. A method of treating or preventing cerebral vasospasm that accompanies SAH comprising administering to a patient in need of such treatment or prevention an amount of an agent that inhibits extracellular matrix synthesis or secretion or weakens or degrades extracellular matrix, sufficient to effect said treatment or prevention.

13. The method according to claim 12 wherein said agent is a compound that inhibits a stimulator of extracellular matrix production in vascular walls.

14. The method according to claim 13 wherein said stimulator is a growth factor.

15. The method according to claim 14 wherein said agent is a compound that inhibits binding of said growth factor to a receptor therefor.

16. The method according to claim 15 wherein said compound is an antibody specific for said growth factor.

17. The method according to claim 13 wherein said stimulator is transforming growth factor beta, ascorbate or connective tissue growth factor.

18. The method according to claim 12 wherein said agent inhibits prolyl-4-hydroxylase.

19. The method according to claim 18 wherein said agent is a peptide containing 5'oxaproline, an anthracycline or a derivative of 2-oxoglutarate.

20. The method according to claim 12 wherein said agent inhibits lysyl oxidase.

21. The method according to claim 20 wherein said agent is β -aminopropionitrile, β -bromoethylamine, p -halobenzylamine, ethylenediamine, homocysteine thiolactone, hydrazine, dipyridyl, phenylhydrazine or semicarbazide.

22. The method according to claim 12 wherein said agent is a compound that weakens or degrades extracellular matrix.

23. The method according to claim 23 wherein said compound is a matrix metaloproteinase or a serine protease.

24. A method of identifying an agent potentially suitable for use in treating or preventing cerebral vasospasm that accompanies SAH comprising contacting a growth factor that stimulates proliferation or extracellular matrix production and a receptor therefor in the presence and absence of a test compound and determining the ability of the test compound to inhibit binding of said growth factor to said receptor, wherein a test compound that inhibits said binding is potentially suitable for use in said treatment or prevention.

25. A method of identifying an agent suitable for use in treating or preventing cerebral vasospasm that accompanies SAH comprising measuring cell proliferation or extracellular matrix production in excised cerebral arteries exposed to a growth factor that stimulates proliferation or extracellular matrix production in the presence and absence of a test compound, wherein a test compound that inhibits cell proliferation or extracellular matrix production is suitable for use in said prevention or treatment.

26. A method of identifying an agent potentially suitable for use in treating or preventing cerebral vasospasm that accompanies SAH comprising incubating collagen under conditions such that degradation of said collagen can occur in the presence and absence of a test compound and determining whether degradation of said collagen is enhanced or inhibited, wherein a test compound that enhances degradation of said collagen is potentially suitable for use in said treatment or prevention.

27. A compound identifiable using said method of claim 24, 25 or 26.

28. The method according to claim 1 wherein said agent is nitric oxide.